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In Cooperation with State, Federal and Other Agencies

# COTTON INSECT CONDITIONS - AUGUST 4, 1951

(Tenth Cotton Insect Survey Report for 1951)

Cotton growers in all States where the boll weevil is a menace should destroy cotton stalks early -- the earlier the better. Early fall destruction of cotton stalks is one of the best and cheapest means of reducing damage from boll weevils for the next season. As soon as the cotton is picked stalks should be destroyed. Destruction of stalks before frost cuts off the food supply and breeding places for the weevil. The longer the time between stalk destruction and frost, the greater the number of weevils that will die of starvation, or go into hibernation in a weakened condition. It is profitable to destroy stalks at any time before frost -- even a few days before frost will be worth the effort and expense.

## INSECTICIDES

South Carolina: The Ninth Weekly Report issued July 28 by the Extension Service stated: "Shortages: Darlington - 10% DDT dust and sulfur dust; Greenville - toxaphene dust, toxaphene spray concentrate, DDT spray concentrate; Hampton - sulfur dust and defoliants; Jasper - defoliants; Lancaster - sulfur dust."

## BOLL WEEVIL

Virginia: Wayne L. Howe, Associate Entomologist, Tidewater Field Station, Holland, reported on August 8: "Boll weevil infestations in Nansemond County have remained low, probably due to weather conditions and dusting operations. An untreated field examined August 2 showed 34% weevil injury, which on the previous week showed 31% injured squares."

North Carolina: The Cotton News Letter No. 19 issued by the Extension Service on August 3 stated: "Sharp weevil increase took place in the fields which have shown high populations all season. Treated fields generally showed good reductions where applications have been made at 5 to 7 day intervals. In certain areas only a small percentage of fields checked have needed or received treatment to date. The more heavily infested fields reported in the treated areas have not received a consistent treatment program. The same is true for many fields reported as treated in other counties. Migration seems to have begun in most areas." In the examination 260 poisoned fields in 42 counties, weevils were found in 227 fields at an average rate of 13% punctured squares as compared with 9% last week. In the examination of 153 unpoisoned fields 152 were infested at an average rate of 42% punctured squares as compared with 29% last week. Heavy infestation was in some unpoisoned fields in most all of the 40 counties.

South Carolina: The Eleventh Cotton Letter issued July 31 stated: "In the eastern-half of the State where cotton is now maturing, a few bolls opening and plants are blooming in the top. In the western-half of the State where cotton is now blooming and fruiting, regular applications of insecticides must be made to protect all bolls until they are at least 21 days old. Cotton can be expected from fruit now blooming in the upper Piedmont counties." In the examination of 54 poisoned fields in 18 counties, weevils were found in all fields at an average rate of 39% punctured squares as compared with 77% for the corresponding week in 1950. Weevils were found in all of the 54 unpoisoned fields examined in the same 18 counties at an average rate of 81% punctured squares as compared with 96% for the corresponding week a year ago.

Georgia: C. M. Beckham, G. M. Sutton and E. T. Cody reported during the week ending August 3: "Cotton is now opening in the Coastal Plains Section and picking has begun in a number of counties. Cotton is still blooming in the Northern Section of the State, although the peak bloom is over. Boll weevils have increased during the week and many fields still need poisoning." Weevils were found in all of the 94 poisoned fields examined in 18 counties at an average rate of 15% punctured squares as compared with 11% last week. The infestation ranged from 1 to 10% in 35 fields, from 11 to 25% in 47 fields, and in 12 fields more than 25% of the squares were punctured. Weevils were found in all 78 unpoisoned fields examined in the same 18 counties at an average rate of 28% punctured squares as compared with 24% last week. The infestation ranged from 1 to 25% in 31 fields, from 26 to 50% in 45 fields, and in 2 fields in Tift County more than 50% of the squares were punctured.

Alabama: During the week ending August 4 Conrad J. Ward reported that cotton was opening rapidly in 10 southwestern counties and some picking was under way. Weevils were found in 63 of of the 64 fields examined at an average rate of 31% punctured squares. The infestation ranged from 1 to 25% in 28 fields, from 26 to 50% in 22 fields, and more than 50% of the squares were punctured in 12 fields.

Tennessee: R. P. Mullett, Extension Entomologist, wrote to All Cotton County Agents on July 30: "The weather has continued hot and dry, thus slowing down the growth of the cotton plants, but has been favorable for the setting of fruit. Eighty-eight fields were examined this week and 58 fields, or 66%, were found infested. The average infestation in infested fields was 7% and for all fields 4%. In only one county (Lake) were no infestations found. The quick and efficient control of early infestations by the growers and the advent of unfavorable weather for the weevil a few weeks ago have resulted in low infestation rates. The few high infestations that are present are due to no controls in the fields so infested or to lack of proper application."

Mississippi: Hot, dry weather continued during the week and boll weevil infestations are low in the 17 Delta counties. Of 665 fields examined, 485 or 73% were infested against 60% last week. The average infestation in infested fields was 9% against 8% last week. A year ago when 361 were inspected, 342 or 95% were infested at the average rate of 28%. On account of some local migration poisoning for the control of the boll weevil is picking up some over last week. However, many farmers are yet poisoning for the control of lepidopterous larvae only.

Louisiana: R. C. Gaines reported on August 2 that frequent rains during the week were unfavorable for boll weevil control. The average weevil infestation in 544 fields examined in 14 parishes was 17% punctured squares as compared with 11% last week, 23% in 1950, and 32% in 1949. No punctured squares were found in 3 fields. The infestation ranged from 1 to 10% in 250 fields, from 11 to 25% in 187 fields, from 26 to 50% in 72 fields, and more than 50% of the squares were punctured in 30 fields.

L. D. Newsom reported for the Shereveport area: "Weevils are becoming restless, but so far, there is no sign of general migration."

John S. Roussel reported for the Monroe area: "The boll weevil population remains heavy, requiring general dusting throughout the area. Excessive local showers in some localities have resulted in some growers missing or delaying one application of poison during the past week."

Arkansas: Rains over the State were favorable for cotton growth. Weevils in general are well under control except in areas where showers interrupted dusting. Of 886 fields examined in 15 counties the infestation averaged 10% punctured squares as compared with 7% last week. The lowest infestations were found in eastern and northeastern counties where the averages were 6 to 7%, respectively. In southwestern counties the average infestation was 15% as compared with 17% last week, 42% in 1950, and 22% in 1949. In southeastern counties the average infestation was 16% as compared with 13% last week, 19% in 1950 and 51% in 1949.

Texas: Hot, dry weather presisted over large areas of the State and as a result much of the non-irrigated cotton in central, northern, eastern and western areas is maturing without a full crop or is deteriorating rapidly. Harvesting is underway in the southern half of the State. Boll weevils are still numerous enough in some fields in the northern and northeastern areas to cause damage, and control measures are needed in certain fields. Damaging insect infestations in these areas are confined principally to succulent late-fruting cotton growing on fertile land or where rains have occurred recently. The boll weevil infestation in 381 fields in 53 counties averaged 16% this week as compared with 17% last week and 37% a year ago.

Oklahoma: Boll weevils are beginning to migrate and are numerous in most unpoisoned fields in central and eastern counties. Of 334 fields examined in 40 counties, 287 were infested in 38 counties. The heaviest infestations were found in Okmulgee, Okfuskee, Creek, Payne, Stephens, and McIntosh Counties.

## PINK BOLLWORM

Texas: The Division of Pink Bollworm Control reported on July 31 that four gin trash machines continued operating in the Lower Rio Grande Valley during the week. There was very little change in the degree of infestation in the four valley counties. In Cameron County, however, the number of pink bollworms per bushel has increased from 14 on July 20 to 72 on July 27. The infestation is much lighter than last year when 339 per bushel were collected on July 28. Hidalgo and Starr Counties showed a decided increase and Willacy is about the same. Grouping the 4 valley counties together, in 1950 there were 294 pink bollworms per bushel and 96 in 1951. The infestation seems to be spotted, being much heavier in the La Grulla section in Starr County; south of Mission; the Donna sections of Hidalgo County, and the Rangerville and San Benito sections of Cameron County.

## COTTON LEAFWORM

Texas: One cotton leafworm was collected in Lamb County on July 30 by Bill Rogers, Assistant County Agent. The only previous record this season was from Cameron County on July 17.

## BOLLWORMS AND OTHER LEPIDOPTEROUS LARVAE ON COTTON

Alabama: Bollworms were found in 35 of the 64 fields examined in 10 southwestern counties at an average rate of 6% injured squares in infested fields. The heaviest infestations were found in Monroe, Escambia, and Conecuh Counties.

Tennessee: R. P. Mullett, Extension Entomologist, reported on August 6 that 76% of the 88 fields examined in 9 western counties showed lepidopterous larvae injury. The infestation ranged from 1 to 28% injured squares. Three species of worms were mainly responsible for the injury -- the bollworm, garden webworm and yellow-striped armyworm.

Mississippi: Lepidopterous larvae in cotton are increasing in most areas scouted, but egg deposition is decreasing.

Louisiana: There have been considerable increases in bollworm egg deposition and in the number of small larvae found. Yellow-striped armyworms have been reported in a number of fields in northeastern parishes.

Arkansas: In general, lepidopterous larvae have increased during the past week. Bollworms have increased, particularly in the southwestern and southeastern portions of the State.

Texas: The heaviest and most widespread infestations of bollworm are in western areas, mostly in the irrigated cotton on the South Plains and in the Pecos and El Paso Valleys.

Oklahoma: C. F. Stiles, Extension Entomologist, wrote on August 3: "At the present time the bollworm is doing enormous damage to bottom cotton, especially where we have had rain recently."

## IRRIGATED COTTON OF THE SOUTHWEST

Arizona: Bollworms were found in damaging numbers in many fields in the Salt River Valley. *Lygus* spp. populations were found to be high in many fields throughout the Valley. Stink bugs increased in a few fields. Salt-marsh caterpillar moths were observed in cotton fields in Deer Valley and in the Buckeye area. Considerable dusting is still underway for bollworm control throughout the Santa Cruz Valley. Stink bugs are appearing in some fields. The beet armyworm continues to be a problem in a few fields.

California: Stewart Lockwood, Entomologist, State Department of Agriculture, Sacramento, wrote on July 30: "W. W. Wiard of this Bureau continued the cotton insect survey in Tulare and Kern Counties this week. This information is that mites are increasing in Tulare County. Sulfur dust has been applied without success in some fields. In Kern County mites were severe in a few scattered fields. White flies, lygus bugs and leafhoppers were noted as present in practically every field but no damage had occurred, as yet."

New Mexico: The New Mexico Cotton Letter, August 4, stated: "The bollworm is increasing rapidly in all the cotton counties of New Mexico. High humidity and scattered showers have been factors contributing to the rapid growth of bollworm infestations. In general, control measures have been effective, but with many applications having to be repeated because of rains washing poison from plants.

"Pecos Valley: W. D. Rogers reported that bollworm infestation and poisoning all over the valley, with fairly satisfactory control. Injurious insects other than the bollworm continue to be very scarce, probably because of treatment for bollworms.

"Deming area: County Agent Seldon Baker reports that bollworm is the most important problem in that area at this time. The infestation is heavy and general. Red spider has done extensive damage in some fields, but no new infestation has been found. Cotton aphids were numerous enough in one field to resume control measures and were reported in small numbers in many fields. A few armyworms and beet armyworms have been found. The Lygus bug and plant bug population remain below damaging portions, nymphs are increasing rapidly. Stink bugs are becoming widespread, but infestation is light.

"Mesilla and Rincon Valleys: County Agent Grant Harper also reports the bollworm to be the chief source of concern in these valleys. In some instances, poor control has been achieved due to heavy showers. He also reports a sport or two of red spiders around Hatch which are doing heavy damage but the infestations are confined to two or three fields."

Texas: L. W. Noble reported for the week ending August 4: "Bollworm infestation is the most serious insect problem in the El Paso area at present. This insect increased rapidly during the week in the entire valley. Infestation counts were made in 22 fields distributed from El Paso to Fort Hancock. Of the 22 fields examined, 10 showed need for bollworm control. The highest count was 24 larvae and 4 eggs per 100 plant terminals. Hemipterous cotton insect infestation continued light in most fields that have not been poisoned and decreased generally due to extensive poison application."

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PREPARED AUGUST 10, 1951